

Lecture Module - Electrical Instruments

ME3023 - Measurements in Mechanical Systems

Mechanical Engineering
Tennessee Technological University

Topic 1 - Performing Analog Measurements

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- Safety and Electricity
- Using a Digital Multimeter
- Measuring Voltage and Current
- Measuring Resistance and Continuity



Sanwa YX360TRF

Safety and Electricity

Complete the safety training modules to learn more.

Using a Digital Multimeter

Benchtop Multimeter

- DMM
- Interface varies by manufacturer
- Features vary by model



Image: Fluke Multimeter



Image: Bk Precision Multimeter

Using a Digital Multimeter

Handheld Multimeter



Image:



Image:



Image:

Measuring Voltage and Current

Voltage



Image: Bk Precision Multimeter

[Read about measuring DC voltage
or AC voltage](#)

Measuring Voltage and Current

Current



Image: Bk Precision Multimeter [Read about](#)

measuring current (with clamp)

Measuring Resistance and Continuity

Resistance



Image: Bk Precision Multimeter

[Read about measuring resistance.](#)

Measuring Resistance and Continuity

Continuity



Image: Bk Precision Multimeter

[Read about measuring continuity](#)